

R E M A R K S

Applicants have considered the official action mailed June 18, 2003 and respectfully submits that the claims are directed to patentable subject matter as set forth below.

The sole rejection is of claims 21-30 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,320,162 (Schulz) in view of U.S. Patent No. 3,954,554 (Curry) or U.S. Patent No. 5,698,291 (Clark) or U.S. Patent No. 6,214,146 (Merker).

Initially, it is noted that claim 21 has been amended herein to clarify the claimed "marking patterns" and define the relative thickness between the peripheral zone and the central zone. Claim 21 is the only independent claim. Applicants submit that all the claims are in condition for allowance as set forth below.

The claimed absorbent paper product includes at least two superposed plies of a format having a peripheral zone along edges of the format and a central zone enclosed by the peripheral zone. The plies are joined together by marking patterns without glue at least along a segment of the peripheral zone. The marking patterns are composed of compacted zones on one side of the plies without corresponding salients on an opposite side of the plies.

Further, at least one of the at least two plies has an embossing pattern in the central zone. The at least two plies have a thickness along the peripheral zone which is less than the thickness of both plies in the central zone. The applied combination of art does not provide for the claimed invention.

The primary reference Schulz is relied on by the Examiner for teaching two plies of a format with edges, a peripheral zone along an edge, the joining of the plies by "marking patterns (deep embossments)", a central zone enclosed by a peripheral zone, and an "embossing pattern (shallow embossments)" in the central zone. Schulz is acknowledged by the Examiner as failing to disclose plies bonded together without adhesive. The Examiner then relies on any one of the secondary references of Curry, Clark or Merker to teach methods of joining plies without an adhesive, and states that it would be obvious to use one of the methods of Curry, Clark or Merker to bond the plies described in Schulz. Applicants submit, however, that Schulz does not teach or suggest the claimed elements as set forth by the Examiner.

More specifically, Figure 2 as shown in Schulz is a fragmented plan view of the embossed web structure taught therein. As shown in Figures 1, 2 and 3 of Schulz, each web has relatively deep embossments 24 and 26 having land and

recessed areas, and relatively shallow surrounding embossments 25 and 27. The deep embossments of Schulz do not define a peripheral zone. Since Figure 2 shows a fragmented plan view, no edge of the product is shown. Further, Figure 3 is simply a cross-sectional view of a portion of Figure 2. Thus, Schulz does not distinguish a central zone and a peripheral zone since no edge is defined therein.

Further, even assuming that one would cut the ply structure of Schulz into formats with an edge formed with a peripheral zone so as to isolate a number of deep embossments 24 and 26 (which the Examiner equates to the claimed "marking patterns") in such a zone so as to provide a central zone including the shallow embossments as argued by the Examiner, such would be as shown by the red lines drawn on the attached Figures 2 and 3 of Schulz. Even upon such assumption (not specifically taught by Schulz), differences between the structure of Schulz and that claimed by applicants remain, i.e., the defined peripheral zone includes deep embossments and shallow embossments contrary to the claimed invention which includes marking patterns which are not embossments, and the thickness of the "peripheral zone" of Figures 2 and 3 is the same as the central zone (it being noted that Figures 1 and 3 of Schulz are misleading in that depressions 24 and 26 are only local

and do not reflect the thickness of the laminate). As described in applicants' specification, at page 1, third and fifth paragraphs, marking patterns are distinct from embossments, i.e., "marking involves compressing some portions of a sheet ... by forming compacted zones ... without, however, forming corresponding salients on the opposite side" and "embossing involves creating ... salients on a first side with corresponding troughs on the opposite side of the plies".

Accordingly, even by providing a format having a peripheral zone and central zone as taught by applicants and not taught by Schulz, Schulz remains deficient and does not teach or suggest every claimed element of applicants invention. The secondary references, which are relied on solely for teaching methods of non-adhesive joinder of plies, do not make up for the shortcomings of Schulz. In fact, Curry does not teach joining multiple plies without an adhesive. Curry teaches laminating webs together "without the use of additional adhesive" relying on the moisture in the wet-laid webs (column 1, lines 21-23) since in all embodiments the adhesive or binder mixed with the dry fibers of the second ply are activated by the water of the wet-laid plies to provide for bonding upon lamination (column 3, lines 25-28). To further clarify the distinctions set forth above, the claimed "marking patterns" have been further

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defined in claim 21 as being composed of compacted zones on one side of the plies without corresponding salients on an opposite side of the plies, and the thickness along the peripheral zone is set forth in relation to the thickness of the central zone.

Accordingly, applicants submit that the claimed invention is patentable over the applied art in that the applied art does not render the claimed invention obvious within the meaning of §103. Withdrawal of the rejection is requested.

Reconsideration and allowance of the application is respectfully urged.

Respectfully submitted,

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Attachment - Marked-Up Figures 2-3 of U.S. Patent No.
4,320,162

FIG. 1

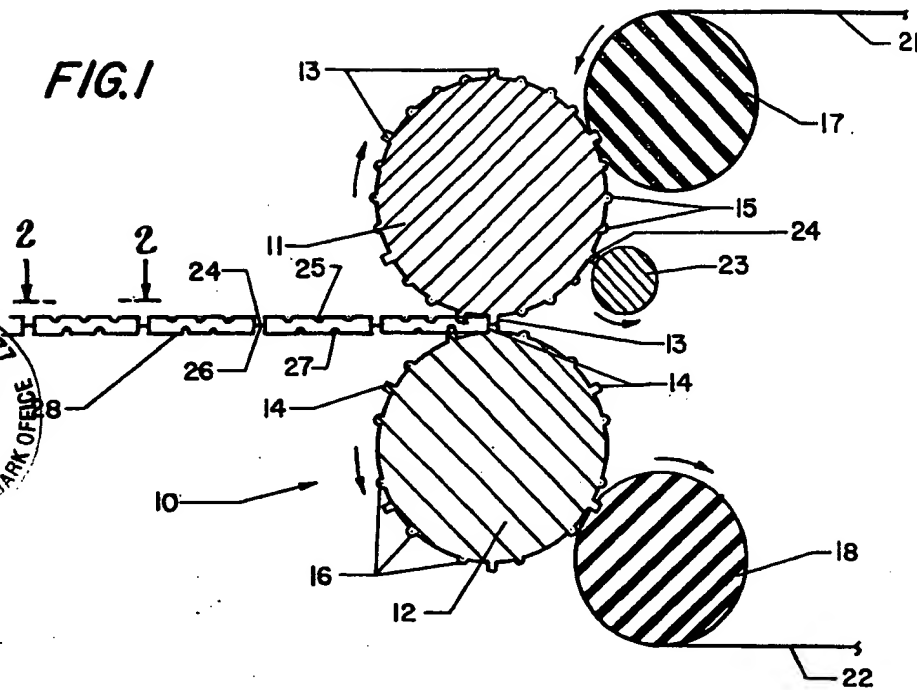


FIG. 2

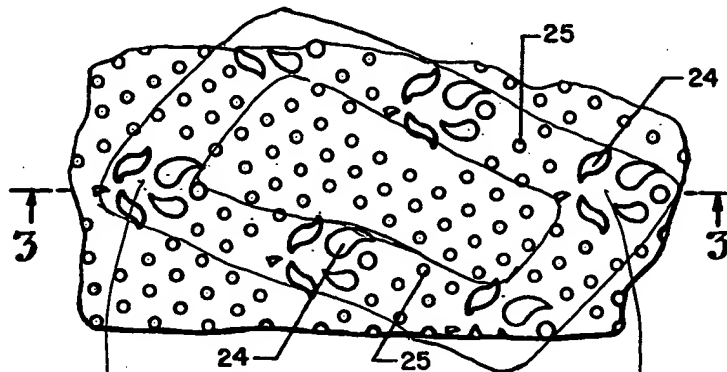


FIG. 3

